

What is claimed is:

1.

A method for stabilizing peptides radiolabeled with a radioisotope by addition of a stabilizer, selected from the group consisting of ascorbic acid and water soluble salts, esters and mixtures thereof to a composition containing a previously radiolabeled peptide, wherein said stabilizer is present in an amount sufficient to prevent oxidation loss and autoradiolysis of the radiolabeled peptide.

2.

The method of claim 1 wherein the peptide is radiolabeled with a radioisotope selected from the group consisting of ^{99m}Tc , ^{186}Re and ^{188}Re .

3.

The method of claim 1 wherein the peptide is radiolabeled by direct labeling of the peptide with a radioisotope.

4.

The method of claim 1 wherein the peptide is radiolabeled by use of a bifunctional chelate.

5.

The method of claim 1 wherein the peptide is a somatostatin analogue.

6.

The method of claim 1 wherein the peptide is radiolabeled prior to addition of the stabilizer, by incubation with the radioisotope for at least fifteen

minutes at a temperature ranging from room temperature to 100°C.

7.

A method for stabilizing proteins radiolabeled with a radioisotope by addition of a stabilizer, selected from the group consisting of ascorbic acid and water soluble salts, esters and mixtures thereof to a composition containing a previously radiolabeled protein, wherein said stabilizer is present in an amount sufficient to prevent oxidation loss and autoradiolysis of the radiolabeled protein.

8.

The method of claim 7 wherein the protein is radiolabeled with a radioisotope selected from the group consisting of ^{99m}Tc , ^{186}Re and ^{188}Re .

9.

The method of claim 7 wherein the protein is radiolabeled by direct labeling of the protein with a radioisotope.

10.

The method of claim 7 wherein the protein is radiolabeled by use of a bifunctional chelate.

11.

The method of claim 7 wherein the protein is an anti-SSEA-1 IgM monoclonal antibody.

12.

The method of claim 7 wherein the protein is radiolabeled prior to addition of the stabilizer by

incubation with the radioisotope for at least fifteen minutes at a temperature ranging from room temperature to 37°C.

13.

The method of claim 7 wherein the protein is radiolabeled at a concentration of between 0.5 and 2 mg/ml, and wherein after radiolabeling and upon addition of the stabilizer in a pharmaceutically acceptable carrier, the protein is at a concentration of between 0.1 and 0.5 mg/ml.

14.

The method of claim 13 wherein the protein is radiolabeled at a concentration of 1 mg/ml, and wherein after radiolabeling and upon addition of the stabilizer in a pharmaceutically acceptable carrier, the protein is at a concentration of between 0.01 and 0.25 mg/ml.

15.

A composition for preparing a stable ^{99m}Tc -labeled anti-SSEA-1 IgM monoclonal antibody preparation, comprising: a preparation comprising a quantity of partially reduced anti-SSEA-1 IgM monoclonal antibody and stannous ion, wherein the anti-SSEA-1 IgM monoclonal antibody is labeled by the addition of ^{99m}Tc sodium pertechnetate and incubation; and a stabilizer selected from the group consisting of ascorbic acid and water soluble salts, esters and mixtures thereof wherein the stabilizer is added to the ^{99m}Tc -labeled anti-SSEA-1 IgM monoclonal antibody preparation subsequent to labeling the anti-SSEA-1 IgM monoclonal antibody by the addition of ^{99m}Tc sodium pertechnetate and

15.

incubation.

1

16.

2

The composition as defined in claim 15 wherein the partially reduced anti-SSEA-1 IgM monoclonal antibody and stannous ion is in the form of a lyophilized kit.

3

4

1

17.

2

The composition as defined in claim 15 wherein the stabilizer is in an aqueous formulation comprising a physiologically acceptable carrier or diluent.

3

4

1

18.

2

A composition stabilized against at least one of oxidation and autoradiolysis containing a radiolabeled peptide or a radiolabeled protein and a stabilizer selected from the group consisting of ascorbic acid and water-soluble salts and esters of ascorbic acid and mixtures of two or more of the foregoing said stabilizer having been added to said composition containing said peptide already radiolabeled.

3

4

5

6

7

8

1

19.

2

A method for stabilizing a composition containing a radiolabeled peptide or a radiolabeled protein comprising the steps of:

3

4

5

6

7

8

9

10

11

12

13

providing a composition containing said peptide or protein, said peptide or protein having already been radiolabeled, and adding to said composition a stabilizing agent selected from the group consisting of ascorbic acid and physiologically acceptable water-soluble salts and esters of ascorbic acid and mixtures of two or more of the foregoing said stabilizers in an amount effective to stabilize said radiolabeled peptide or protein against oxidation or autoradiolysis.